Supplemental Table 1. Common terms used in antimicrobial breakpoint discussions that the clinical microbiologist may be unfamiliar with

Term	Definition
Pharmacokinetics (PK)	Study of drug absorption, distribution, metabolism, and excretion; a key component of drug excretion is drug clearance or elimination (ie: what the body does to the drug)
Pharmacodynamics (PD)	Interaction of the drug with is pharmacologic target
Free drug concentration time above the minimum inhibitory concentration (*f*T > MIC)	Duration of time that the quantity of unbound drug in the serum remains above the bacterial MIC; PD target for antibiotics with time-dependent bactericidal activity, such as beta-lactam antibiotics
Free drug area under the 24-hour time curve ($fAUC_{0-24}$)	Integral of the blood plasma free drug concentration-time curve over 24 hours (ie: total free drug exposure in a 24-hour period)
AUC to MIC ratio	PD parameter for antibiotics with both concentration- and time-dependent bactericidal activity
Monte Carlo Simulation	Expansion of a pharmacokinetic data set/population via computerized simulation to analyze the likelihood of PD target attainment for various antimicrobial dosing strategies
Probability of target attainment (PTA)	Likelihood that the simulated subjects will achieve a pre-defined PD target (ex: 60% *f*T > MIC) with a particular dosing regimen; PTA ≥90% is generally desired to achieve PD target in most patients

Figure 1. Pharmacokinetic/Pharmacodynamic Antimicrobial Parameters. Following a dose of antimicrobial, the free drug concentration in the patient increases to a peak concentration, and then is eliminated from the body. PK/PD parameters that predict antimicrobial activity for those drugs discussed in the paper include, time the drug concentration is above the MIC (fT>MIC), the area under the concentration curve ratio to MIC (AUC/MIC).